

## **The over-determined cauchy problems for the maxwell equations set and electromagnetic waves diffraction on the metallic screens**

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### **Abstract**

The over-determined Cauchy problems for the Maxwell equations set in semi-spaces are investigated in the space of distributions by Fourier integral transform method. The relations between traces of the tangential components of the electric and magnetic fields are obtained. The solution of auxiliary jump problem on the plane is constructed in the closed form. The different variants of the reducing the electromagnetic wave diffraction problem on the metallic screens to integral equations are proposed. © 2006 IEEE.

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